

Electron Tube Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



U S C E N S U S B U R E A U

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)				
334411, Electron tube manufacturing 2002..	92	102	11 489	486 488	8 934	18 822	338 725	919 375	1 500 688	2 445 051	42 286
2001..	N	N	15 627	632 994	12 269	24 473	441 750	1 180 636	1 878 304	3 199 382	162 027
2000..	N	N	16 187	633 281	12 718	26 809	433 493	1 362 109	2 214 529	3 560 211	84 595
1999..	N	N	17 619	663 279	13 647	28 313	449 030	1 758 039	2 089 404	3 821 710	104 761
1998..	N	N	21 443	736 774	16 746	34 209	494 002	1 619 415	2 094 039	3 730 035	121 733
1997..	147	157	21 656	726 712	16 774	34 208	488 835	1 568 417	2 273 565	3 789 948	159 621

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
334411, Electron tube manufacturing												
United States	—	102	39	11 489	486 488	8 934	18 822	338 725	919 375	1 500 688	2 445 051	42 286
California	—	23	10	2 156	98 507	1 632	3 038	67 266	233 603	112 162	347 359	7 248
Illinois	1	4	2	189	8 162	105	171	2 204	8 711	5 990	14 495	1 551
Massachusetts	—	6	3	630	27 428	454	920	17 886	32 964	14 419	46 662	1 322
New Jersey	—	7	5	376	12 483	262	602	7 054	20 070	11 438	31 273	454
Pennsylvania	—	7	4	639	25 887	393	701	12 263	55 301	34 849	84 820	3 633

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
334411, Electron tube manufacturing	
Companies ¹	number.. 92
All establishments ²	number.. 102
Establishments with 1 to 19 employees	number.. 63
Establishments with 20 to 99 employees	number.. 17
Establishments with 100 employees or more	number.. 22
All employees ³	number.. 11 489
Total compensation	\$1,000.. 646 899
Annual payroll	\$1,000.. 486 488
Total fringe benefits	\$1,000.. 160 411
Production workers, average for year	number.. 8 934
Production workers on March 12	number.. 9 126
Production workers on May 12	number.. 8 934
Production workers on August 12	number.. 8 849
Production workers on November 12	number.. 8 818
Production worker hours	1,000.. 18 822
Production worker wages	\$1,000.. 338 725
Total cost of materials	\$1,000.. 1 500 688
Materials, parts, containers, packaging, etc., used	\$1,000.. 1 365 673
Resales	\$1,000.. 72 090
Purchased fuels	\$1,000.. 14 257
Purchased electricity	\$1,000.. 36 826
Contract work	\$1,000.. 11 842
Quantity of electricity purchased for heat and power	1,000 kWh.. 735 079
Quantity of electricity generated less sold for heat and power	1,000 kWh.. -
Total value of shipments	\$1,000.. 2 445 051
Primary products value of shipments	\$1,000.. 2 324 461
Secondary products value of shipments	\$1,000.. 36 829
Total miscellaneous receipts	\$1,000.. 83 761
Value of resales	\$1,000.. 76 069
Contract receipts	\$1,000.. D
Other miscellaneous receipts	\$1,000.. D
Primary products specialization ratio	percent.. 98
Value of primary products shipments made in all industries	\$1,000.. 3 237 050
Value of primary products shipments made in this industry	\$1,000.. 2 324 461
Value of primary products shipments made in other industries	\$1,000.. 912 589
Coverage ratio	percent.. 72
Value added	\$1,000.. 919 375
Total inventories, beginning of year	\$1,000.. 356 919
Finished goods inventories	\$1,000.. 159 092
Work-in-process inventories	\$1,000.. 90 044
Materials and supplies inventories	\$1,000.. 107 783
Total inventories, end of year	\$1,000.. 311 136
Finished goods inventories	\$1,000.. 134 219
Work-in-process inventories	\$1,000.. 89 929
Materials and supplies inventories	\$1,000.. 86 988
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. 1 939 246
Total capital expenditures (new and used)	\$1,000.. 42 286
Buildings and other structures (new and used)	\$1,000.. 6 168
Machinery and equipment (new and used)	\$1,000.. 36 118
Automobiles, trucks, etc., for highway use	\$1,000.. 372
Computers and peripheral data processing equipment	\$1,000.. 1 781
All other expenditures for machinery and equipment	\$1,000.. 33 965
Total retirements	\$1,000.. 173 213
Gross value of depreciable assets at end of year	\$1,000.. 1 808 319
Depreciation charges during year	\$1,000.. 105 570
Total rental payments	\$1,000.. 15 982
Buildings and other structures	\$1,000.. 12 203
Machinery and equipment	\$1,000.. 3 779
Total other expenses ⁴	\$1,000.. 104 493
Response coverage ratio ⁵	percent.. 95
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 25 201
Communications services ⁴	\$1,000.. 2 020
Legal services ⁴	\$1,000.. 1 110
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 1 622
Advertising and promotional services ⁴	\$1,000.. 1 253
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 2 436
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 7 327
Management consulting and administrative services ⁴	\$1,000.. 11 299
Taxes and license fees ⁴	\$1,000.. 7 659
All other expenses ⁴	\$1,000.. 44 564

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
334411, Electron tube manufacturing											
All establishments	—	102	11 489	486 488	8 934	18 822	338 725	919 375	1 500 688	2 445 051	42 286
Establishments with—											
1 to 4 employees	9	31	68	2 618	51	100	1 712	6 222	7 272	13 490	986
5 to 9 employees	7	16	106	4 464	78	165	2 758	12 342	10 217	23 119	1 235
10 to 19 employees	4	16	207	7 983	145	297	4 616	18 935	16 839	36 137	1 932
20 to 49 employees	—	11	348	13 365	240	493	6 928	28 262	15 710	46 240	790
50 to 99 employees	—	6	431	18 179	292	605	11 747	33 199	15 928	48 277	2 173
100 to 249 employees	—	8	1 289	47 537	843	1 420	22 515	100 020	67 100	162 191	3 275
250 to 499 employees	1	9	2 838	131 579	2 107	4 190	87 844	255 439	133 899	397 109	8 704
500 to 999 employees	—	1	f	D	D	D	D	D	D	D	D
1,000 to 2,499 employees	—	4	i	D	D	D	D	D	D	D	D
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	47	205	8 385	161	334	5 552	21 831	25 781	47 608	3 403

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
334411	Electron tube manufacturing	102	11 489	486 488	8 934	18 822	338 725	919 375	1 500 688	2 445 051	42 286
3344111	Transmittal, industrial, and special-purpose electron tubes (except X-ray)	23	3 643	161 035	2 612	4 935	99 233	355 471	184 454	546 130	11 263
3344114	Receiving-type electron tubes, including cathode ray (new and rebuilt)	15	6 519	273 482	5 365	11 889	206 620	484 566	1 247 514	1 752 089	25 193
3344117	Electron tube parts	14	832	31 136	577	1 209	18 733	55 954	40 497	95 229	2 470

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
334411	Electron tube manufacturing	2002.. N	X	X	3 237 050
	..... 1997.. N	N	X	X	4 219 906
3344111	Transmittal, industrial, and special-purpose electron tubes (except X-ray)	2002.. N	X	X	586 614
	..... 1997.. N	N	X	X	577 989
33441111	Transmittal, industrial, and special-purpose electron tubes (except X-ray)	2002.. N	X	X	586 614
	..... 1997.. N	N	X	X	577 989
3344111100	Transmittal, industrial, and special-purpose electron tubes (except X-ray) ¹	2002.. 29	X	X	586 614
	..... 1997.. 31	31	X	X	577 989
3344114	Receiving-type electron tubes, including cathode ray (new and rebuilt)	2002.. N	X	X	2 515 608
	..... 1997.. N	N	X	X	3 394 462
33441141	Receiving-type electron tubes, including cathode ray (new and rebuilt)	2002.. N	X	X	2 515 608
	..... 1997.. N	N	X	X	3 394 462
3344114100	Receiving-type electron tubes, including cathode ray (new and rebuilt) ¹	2002.. 15	X	X	2 515 608
	..... 1997.. 18	18	X	X	3 394 462
3344117	Electron tube parts	2002.. N	X	X	92 905
	..... 1997.. N	N	X	X	156 671
33441171	Electron tube parts	2002.. N	X	X	92 905
	..... 1997.. N	N	X	X	156 671
3344117100	Electron tube parts ¹	2002.. 26	X	X	92 905
	..... 1997.. 16	16	X	X	156 671
334411W	Electron tube manufacturing, nsk, total	2002.. N	X	X	41 923
	..... 1997.. N	N	X	X	90 784
334411WY	Electron tube manufacturing, nsk, total	2002.. N	X	X	41 923
	..... 1997.. N	N	X	X	90 784
334411WYWW	Electron tube manufacturing, nsk, for nonadministrative-record establishments	2002.. N	X	X	201
	..... 1997.. N	N	X	X	35 869
334411WYWY	Electron tube manufacturing, nsk, for administrative-record establishments	2002.. N	X	X	41 722
	..... 1997.. N	N	X	X	54 915

¹For additional detail, see Current Industrial Report MA334Q, Semiconductors and Electronic Components.

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. Product Class Shipments for Selected States: 2002 and 1997

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3344111	Transmittal, industrial, and special-purpose electron tubes (except X-ray)	
	United States 2002 ..	586 614
	..... 1997 ..	577 989
	California 2002 ..	326 454
	..... 1997 ..	317 383
	New Jersey 2002 ..	24 439
	..... 1997 ..	36 359
	Pennsylvania 2002 ..	72 802
	..... 1997 ..	69 217
3344114	Receiving-type electron tubes, including cathode ray (new and rebuilt)	
	United States 2002 ..	2 515 608
	..... 1997 ..	3 394 462
3344117	Electron tube parts	
	United States 2002 ..	92 905
	..... 1997 ..	156 671
	California 2002 ..	41 376
	..... 1997 ..	N
	Massachusetts 2002 ..	9 562
	..... 1997 ..	N

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
334411	Electron tube manufacturing		
00900001	Total materials .....2002..	X	1 365 673
	.....1997..	X	2 088 919
32721203	Tube blanks .....2002..	X	2 602
	.....1997..	X	538 666
33441200	Printed circuit boards (without inserted components) for electronic circuitry.....2002..	X	D
	.....1997..	X	2 658
001900C4	Printed circuit assemblies, loaded boards, and modules (printed circuit boards with inserted electronic components) .....2002..	X	8 994
	.....1997..	X	13 529
33441300	Semiconductors (including transistors, diodes, rectifiers, and integrated circuits), for electronic circuitry .....2002..	X	11 757
	.....1997..	X	D
33441400	Capacitors for electronic circuitry .....2002..	X	4 878
	.....1997..	X	1 584
33441500	Resistors for electronic circuitry .....2002..	X	D
	.....1997..	X	1 364
001900D3	All other miscellaneous components and accessories, for electronic circuitry (excluding tubes) .....2002..	X	108 619
	.....1997..	X	D
33141911	Gold and other precious metals, all forms (including ingot, sheet, strip, solder, plating, electrodes, etc.) .....2002..	X	4 664
	.....1997..	X	11 424
33141917	Doped chemicals and other doped materials for electronic use .....2002..	X	D
	.....1997..	X	D
33111107	Ferrites (powder and paste) .....2002..	X	D
	.....1997..	X	D
331000AA	Metal powders .....2002..	X	3 121
	.....1997..	X	4 448
33411001	Electronic computer equipment.....2002..	X	D
	.....1997..	X	N
33593101	Current-carrying wiring devices.....2002..	X	818
	.....1997..	X	1 164
33422001	Electronic communication equipment.....2002..	X	D
	.....1997..	X	211
33451501	Electrical instrument mechanisms and meter movements (including instrument relays) .....2002..	X	D
	.....1997..	X	D
33451503	All other miscellaneous electrical measuring instruments and parts .....2002..	X	D
	.....1997..	X	N
33531211	Fractional horsepower electric motors (less than 1 hp) .....2002..	X	D
	.....1997..	X	N
001900B1	Electrical transmission, distribution, and control equipment.....2002..	X	52 120
	.....1997..	X	N
33431005	Loudspeakers, microphones, and tuners (all types) .....2002..	X	D
	.....1997..	X	N
32720003	Glass and glass products (excluding windows and mirrors) .....2002..	X	563 232
	.....1997..	X	N
33331401	Optical instruments and lenses (excluding sighting, tracking, and fire control) .....2002..	X	D
	.....1997..	X	D
32521105	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc. ....2002..	X	D
	.....1997..	X	337
32610011	Fabricated plastics products (excluding gaskets) .....2002..	X	6 444
	.....1997..	X	1 049
332000A9	Sheet metal products (excluding stampings) .....2002..	X	D
	.....1997..	X	45 272
332000AC	Metal stampings.....2002..	X	33 731
	.....1997..	X	71 924
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products .....2002..	X	24 447
	.....1997..	X	6 253
33200033	Other fabricated metal products (excluding forgings) .....2002..	X	90 401
	.....1997..	X	41 573
33210000	Forgings .....2002..	X	233
	.....1997..	X	N
33100035	Castings, rough and semifinished.....2002..	X	13 795
	.....1997..	X	D
33120001	Steel shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	D
	.....1997..	X	2 214
33142111	Copper and copper-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	5 696
	.....1997..	X	D
33100038	Aluminum and aluminum-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	1 128
	.....1997..	X	N
33100082	Other nonferrous metal shapes and forms (excluding aluminum and aluminum-base alloy and copper and copper-base alloy castings, forgings, and fabricated metal products).....2002..	X	1 235
	.....1997..	X	N
331000A7	Insulated wire and cable (including magnet wire) .....2002..	X	3 674
	.....1997..	X	D
32220017	Paper and paperboard containers (including shipping sacks and other paper packaging supplies) .....2002..	X	4 152
	.....1997..	X	1 780
32611305	Resists (photosensitive resin films applied to the surface of a wafer) .....2002..	X	D
	.....1997..	X	D
32512005	Commodity gases .....2002..	X	27 312
	.....1997..	X	4 114
32599217	Masks .....2002..	X	16
	.....1997..	X	D
32510074	Solvents.....2002..	X	D
	.....1997..	X	N
32561000	Cleaning compounds .....2002..	X	D
	.....1997..	X	N
00970099	All other materials and components, parts, containers, and supplies.....2002..	X	264 543
	.....1997..	X	496 788
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	23 870
	.....1997..	X	670 584

See footnotes at end of table.

Table 7. **Materials Consumed by Kind: 2002 and 1997—Con.**

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.